RADIATION DETECTION DEVICES

Abstract of the Disclosure

Radiation detectors are disclosed that include at least one element (pixel). In a pixel, a desired positional relationship between two "effecting" elements is maintained regardless of changes in temperature or other prevailing variable. The detectors can be "electrical capacitance" or "optical-readout" types. A pixel of the electrical capacitance type includes two electrodes (reference electrode and response electrode) that face each other and have a set gap therebetween. The electrodes are attached to respective displaceable members (configured as thermal bimorphs) having identical structures. A pixel of the optical readout type includes a half-mirror and a reflector that face each other and have a set gap therebetween. The half-mirror and reflector are attached to respective displaceable members. Radiation is absorbed by a radiation absorber that transfers the heat to certain displaceable members that bend to tilt accordingly. Other displaceable members are not heated and do not bend. The displaceable members are formable simultaneously during respective fabrication steps.